INDEX—AUTHOR AND SUBJECT

Page

A collaborative study of the manometric determination of gassing-power. R. M. Sandstedt 517
A comparative study of the Blish and Sandstedt and a modified Rumsey procedure for the estimation of diastatic activity. W. F. Geddes and W. J. Eva..... 402
A modified method for the removal of added ingredients from phosphated and self-rising flours in order to determine the ash content of the original flour. G. A. Shuey 289
A simple method for determining the "yellowness" and "grade" of wheat flours. A. G. Simpson 569
A Study of temperature changes in a small laboratory oven when drying flour at 130° C. J. H. Lanning 69
A study of the availability of bread carbohydrates. E. P. Laug, L. A. Garavelli, and T. P. Nash, Jr. 356
A study of the physical properties as well as some of the chemical properties of dried egg albumen with the view of standardizing this substance for the official cake test. Charles A. Glabau and Erna Kepes 108
A study of yeast variability as measured by the Fermentograph. Cleo Near and B. Sullivan 506
Absorption spectra, aqueous acetone extract of durum wheat. M. C. Markley and C. H. Bailey 43
Acetic acid, effect of, on growth of *Aspergillus niger*. G. W. Kirby, C. N. Frey, and L. Atkin 250
Acetone extracts, whole wheat meal, pigments of. M. C. Markley and C. H. Bailey 40
Acetylmethylcarbinol
  Factors influencing the quantity of in bread and dough. F. Visser't Hooft and F. J. G. deLeeuw 221
    Diastase preparations 223
    Doughing procedure 224
    Fermentation temperature 223
    Fermentation time 223
    Oxidizing agents and oxygen 224
    Sugar-yeast ratio 222
    Yeast selection 226
  Figure for commercial breads. F. Visser't Hooft and F. J. G. deLeeuw 219
  Occurrence of, in bread and development of flavor. F. Visser't Hooft and F. J. G. deLeeuw 213
  Origin of, in bread. F. Visser't Hooft and F. J. G. deLeeuw 219
Acids
  Effect of specific acids on the growth of *Aspergillus niger*. G. W. Kirby, C. N. Frey, and L. Atkin 249
  Inorganic, peptizability of flour proteins by. C. E. Mangels and J. J. Martin, Jr. 149
  Organic, peptization of flour proteins by. C. E. Mangels and J. J. Martin, Jr. 149
Aging of flour
  Effect of, on quality. N. P. Kozmin 167
  Effect of removal of flour fat on. N. P. Kozmin 167
  Nature of process. N. P. Kozmin 165, 171
Aitkin, T. R., and W. F. Geddes. An experimental milling and baking technique requiring 100 grams of wheat 696
Alcohol (dilute), Extracts of wheat pigments of. M. C. Markley and C. H. Bailey 40
Alexander, G. L. Chairman, General report of the 1933–34 committee on cake baking tests 294
An automatic timing device for use with a Hobart-Swanson Mixer. J. G. Malloch and K. Hlynka 130
An experimental flour mill for 100 gram wheat samples. W. F. Geddes and B. Frisell 691
An experimental milling and baking technique requiring 100 grams of wheat. W. F. Geddes and T. R. Aitken 696
An improved apparatus for measuring gas production and expansion in dough. Roy Irvin 146
An index of proteolytic activity by use of the Farinograph. Quick Landis 25
Analysis of color in flour by means of the N–A colorimeter. J. C. Baker, H. K. Parker, and F. B. Freese 19

INDEX—AUTHOR AND SUBJECT

Page

A collaborative study of the manometric determination of gassing-power. R. M. Sandstedt 517
A comparative study of the Blish and Sandstedt and a modified Rumsey procedure for the estimation of diastatic activity. W. F. Geddes and W. J. Eva..... 402
A modified method for the removal of added ingredients from phosphated and self-rising flours in order to determine the ash content of the original flour. G. A. Shuey 289
A simple method for determining the "yellowness" and "grade" of wheat flours. A. G. Simpson 569
A Study of temperature changes in a small laboratory oven when drying flour at 130° C. J. H. Lanning 69
A study of the availability of bread carbohydrates. E. P. Laug, L. A. Garavelli, and T. P. Nash, Jr. 356
A study of the physical properties as well as some of the chemical properties of dried egg albumen with the view of standardizing this substance for the official cake test. Charles A. Glabau and Erna Kepes 108
A study of yeast variability as measured by the Fermentograph. Cleo Near and B. Sullivan 506
Absorption spectra, aqueous acetone extract of durum wheat. M. C. Markley and C. H. Bailey 43
Acetic acid, effect of, on growth of *Aspergillus niger*. G. W. Kirby, C. N. Frey, and L. Atkin 250
Acetone extracts, whole wheat meal, pigments of. M. C. Markley and C. H. Bailey 40
Acetylmethylcarbinol
  Factors influencing the quantity of in bread and dough. F. Visser't Hooft and F. J. G. deLeeuw 221
    Diastase preparations 223
    Doughing procedure 224
    Fermentation temperature 223
    Fermentation time 223
    Oxidizing agents and oxygen 224
    Sugar-yeast ratio 222
    Yeast selection 226
  Figure for commercial breads. F. Visser't Hooft and F. J. G. deLeeuw 219
  Occurrence of, in bread and development of flavor. F. Visser't Hooft and F. J. G. deLeeuw 213
  Origin of, in bread. F. Visser't Hooft and F. J. G. deLeeuw 219
Acids
  Effect of specific acids on the growth of *Aspergillus niger*. G. W. Kirby, C. N. Frey, and L. Atkin 249
  Inorganic, peptizability of flour proteins by. C. E. Mangels and J. J. Martin, Jr. 149
  Organic, peptization of flour proteins by. C. E. Mangels and J. J. Martin, Jr. 149
Aging of flour
  Effect of, on quality. N. P. Kozmin 167
  Effect of removal of flour fat on. N. P. Kozmin 167
  Nature of process. N. P. Kozmin 165, 171
Aitkin, T. R., and W. F. Geddes. An experimental milling and baking technique requiring 100 grams of wheat 696
Alcohol (dilute), Extracts of wheat pigments of. M. C. Markley and C. H. Bailey 40
Alexander, G. L. Chairman, General report of the 1933–34 committee on cake baking tests 294
An automatic timing device for use with a Hobart-Swanson Mixer. J. G. Malloch and K. Hlynka 130
An experimental flour mill for 100 gram wheat samples. W. F. Geddes and B. Frisell 691
An experimental milling and baking technique requiring 100 grams of wheat. W. F. Geddes and T. R. Aitken 696
An improved apparatus for measuring gas production and expansion in dough. Roy Irvin 146
An index of proteolytic activity by use of the Farinograph. Quick Landis 25
Analysis of color in flour by means of the N–A colorimeter. J. C. Baker, H. K. Parker, and F. B. Freese 19

Page

Angel food cake
pH of. L. H. Bailey and J. A. LeClerc 206
Type of flour suitable for. L. H. Bailey and J. A. LeClerc 200
Annual report of the Secretary-treasurer. M. D. Mize 172
Apparatus
Automatic timing device for use with Hobart-Swanson Mixer. J. G. Malloch and K. Hlynka 130
Becker surface tension balance. C. A. Glabau and Erna Kepes 110
Bidwell-Sterling, for determining the moisture content of barley malt. D. A. Coleman and S. R. Snider 634, 640
Bread dryer. E. P. Laug, L. A. Garavelli, and T. P. Nash, Jr. 357
Brown-Duvel Moisture Tester, efficiency of, for determining the moisture content of wheat, oats, and barley. W. H. Cook, J. W. Hopkins, and W. F. Geddes. 236
Bunzell-Becker, for determining moisture in flour and other substances 55
Carter-Simon traveling oven, for determining the moisture content of barley malt. D. A. Coleman and S. R. Snider 628
Dough sheeter, further test with. J. Freilich 276
Electric moisture meters for determining moisture content
Efficiency of, for wheat, oats, and barley. W. H. Cook, J. W. Hopkins, and W. F. Geddes 238
Burton-Pitt meter 240
Davies meter 239
Limbrick meter 240
Tag-Heppenstall meter 240
efficiency of, for barley malt. D. A. Coleman and S. R. Snider 641
Experimental flour mill for 100-gram wheat samples. W. F. Geddes and B. Frisell 691
Experimental malting equipment. J. G. Dickson, H. L. Shands, A. D. Dickson, and B. A. Burkhart 601
Farinograph
for calibrating dough mixers. Quick Landis and J. Freilich 665
for studying the mobility of bread doughs under various conditions. Oscar Skovholt and C. H. Bailey 315
Fermentograph, use of, in measuring yeast variability. Cleo Near and B. Sullivan 507
for determination of acetylmethylcarbinol in bread and dough. F. Visser't Hooft and F. J. G. deLeeuw 216
for determination of gas production and expansion in doughs. Roy Irvin 148
for determining the catalase activity of wheat flour. M. J. Blish and C. E. Bode 134
for determining the freezing point of bread doughs. Oscar Skovholt and C. H. Bailey 327
for determining the granulation number of wheat. G. H. Cutler and G. A. Brinson 121
for determining the moisture content of barley malt. D. A. Coleman and S. R. Snider 623
Forced draft, in air-oven tests for moisture. C. F. Davis 512
Keuffel and Esser Color Analyser for light transmittancy studies. M. C. Markley and C. H. Bailey 36
Moisture ovens for use with the 130° C procedure, possible errors in the operation of. J. H. Lanning 69
Molding and punching device for handling small doughs. J. G. Malloch and J. W. Hopkins 59
N–A Colorimeter for measuring the color of flour and bread. J. C. Baker, H. K. Parker, and F. B. Freese 18
130° C. air-oven for determining
moisture content of grain. W. H. Cook, J. W. Hopkins, and W. F. Geddes 234
for determining moisture content of barley malt. D. A. Coleman and S. R. Snider 628
Seck mill for grinding small samples of wheat. M. C. Markley and C. H. Bailey 49
Soxhlet Extractor, modified. E. W. Blank 543
Special, for making experimental baking tests on 25 grain doughs. W. F. Geddes and T. R. Aitken 691, 696
Special small sized mill for grinding 100 grams of wheat. W. F. Geddes and T. R. Aitken 691
Spectrograph, for use in determining absorption spectra of alcohol acetone extracts of durum wheat. M. C. Markley and C. H. Bailey 43
Vacuum desiccator, for moisture determinations on barley malt. D. A. Coleman and S. R. Snider 624, 628
Vacuum oven for determining
moisture content of grain, efficiency of. W. H. Cook, J. W. Hopkins, and W. F. Geddes 232

Page

for determining moisture content of barley malt. D. A. Coleman and S. R. Snider 625, 628
Water-oven for determining moisture. D. A. Coleman and S. R. Snider 628
Ash of flour in phosphated and self-rising flours. R. A. Barackman and E. A. Vaupel 486
Ash content
original flour contained in phosphated and self-rising flours, modified method for determining. G. A. Shuey 289
soft red winter wheat flours, effect of soil fertility. E. G. Bayfield 5, 6, 8
of flour, various grades and classes. L. H. Bailey and J. A. LeClerc 181
Aspergillus Niger, effect of acidity of medium upon the growth of. G. W. Kirby, C. N. Frey, and L. Atkin 247
Atkin, Lawrence, G. W. Kirby, and C. N. Frey. The growth of bread molds as influenced by acidity 244
Automatic timing device for use with Hobart-Swanson Mixer. J. G. Malloch and K. Hlynka 130
Bailey, C. H.
Book reviews
Les Cereales, by R. Le Gendre 350
The biochemistry of the lipids, by Henry B. Bull 714
and M. C. Markley
Determination of the carotenoid pigment concentration of small samples of whole wheat 49
The nature of the pigments of the gasoline extract of wheat 33
The pigments of the dilute alcohol or acetone extract of whole wheat meal 40
and Oscar Skovholt
Free and bound water in bread doughs 321
The effect of mixing and fermentation upon the protein structure and colloidal properties of doughs 307
W. R. Steller, and M. C. Markley. Factors affecting the diastatic activity of wheat flour II 268
Bailey, L. H.
Report of the Committee on testing rye flour 552
and J. A. LeClerc. Cake and cake-making ingredients 175
R. G. Capen, and J. A. LeClerc. The composition and characteristics of soybeans, soybean flour, and soybean bread 441
Baker, J. C., H. K. Parker, and F. B. Freese. The measurement of color in flour and bread by means of Maxwell discs 17
Baking procedures
Formula and method for making soybean bread. L. H. Bailey, R. G. Capen, and J. A. LeClerc 463
Formula and method for making whole wheat bread. L. H. Bailey, R. G. Capen, and J. A. LeClerc 463
used in studying effect of baking temperatures on vitamin B (B_1) content of various breads. Agnes Fay Morgan and Hilda Frederick 392
Baking temperatures, effect of, on the vitamin B (B_1) content of bread. Agnes Fay Morgan and Hilda Frederick 394, 400
Baking test procedures. Study of factors necessary to have experimental baking tests correlate with commercial baking tests. J. Freilich, S. McHugh, and C. N. Frey 668
Barackman, R. A., and E. A. Vaupel. Ash of flour in phosphated and self-rising flours 486
Barley
Development of varieties for malting purposes. J. G. Dickson, H. L. Shands, A. D. Dickson, and B. A. Burkhart 605, 606
Production of, in the United States. J. G. Dickson, H. L. Shands, A. D. Dickson, and B. A. Burkhart 599
Varieties of, available for malting. J. G. Dickson, H. L. Shands, A. D. Dickson, and B. A. Burkhart 599
Barley and Malt Studies: I. Developing new varieties of barley for malting and their properties. J. G. Dickson, H. L. Shands, A. D. Dickson, and B. A. Burkhart 596
Barley malt, procedure for malting and drying. H. W. Rohde 610, 617
Bayfield, E. G.
Report of the subcommittee on viscosity 532
Soft winter wheat studies III. The effect of some factors influencing viscosity and protein 1
Soft winter wheat studies IV. Some factors producing variations in wholemeal "time" data 559
Beef liver, vitamin G(B_2) content of. Agnes Fay Morgan, and Marion J. Hunt.. 416

Page

Beta-amylase, occurrence of, in wheat flours. W. R. Steller, M. C. Markley, and C. H. Bailey 273
Bidwell-Sterling Method, accuracy of, for determining the moisture in barley malt. D. A. Coleman and S. R. Snider 634, 640
Bing, F. C., V. C. Myers, and D. G. Remp. Hemoglobin production in rats on diets containing bread 372
Biological value of bread proteins
  Tests of, with human subjects. R. B. French and H. A. Mattill 367, 368, 370
  Tests of, with rats. R. B. French and H. A. Mattill 366
Blank, E. W. Modification of the Soxhlet extractor 543
Blish, M. J., and C. E. Bode. Catalase activity in wheat flour 132
Blish, M. J., and R. M. Sandstedt. Definition and measurement of flour strength as an inherent property of wheat 653
  and H. W. Putnam. Factors affecting maltose values in the ferricyanide method for diastatic activity 494
Bode, C. E., and M. J. Blish. Catalase activity in wheat flour 132
Bohn, R. M. Chairman, Report of the committee on testing biscuit and cracker flours 544
Bohn, R. T.
  Notes on interpretation of standard baking test 61
  Milk powder for the cake baking test 300
Book reviews
  Les Cereales, by R. LeGendre; reviewed by C. H. Bailey 305
  Recherches sur l'Insaponifiable de l'Huile de Froment, by A. Dangoumau; reviewed by C. G. Ferrari and A. B. Croze 715
  Starch and flour quality, by C. L. Alsberg; reviewed by D. A. Coleman 306
  Structure and composition of foods. Vol. II. Vegetables, legumes, fruits, by Andrew L. Winton and Kate Barker Winton; reviewed by S. J. Lawellin ... 713
  The biochemistry of the lipids, by Henry B. Bull; reviewed by C. H. Bailey ... 714
  The law of patents for chemists. 2d edition, by Joseph Rossman; reviewed by E. S. Stateler 305
Bound water values in bread doughs
  after different mixing treatments. Oscar Skovholt and C. H. Bailey 340, 342
  Average. Oscar-Skovholt and C. H. Bailey 354
  Effect of protein content of flour on. Oscar Skovholt and C. H. Bailey 354
  Significance of. Oscar Skovholt and C. H. Bailey 345
Bread
  Carbohydrates of, study of their availability. E. P. Laug, L. A. Garavelli, and T. P. Nash, Jr. 336, 364
  Chemical composition of. L. H. Bailey and J. A. LeClerc 178, 179, 466
  Color of, relation of to translucency of sample. J. C. Baker, H. K. Parker, and F. B. Freese 24
  Determination of color in, by means of Maxwell discs. J. C. Baker, H. K. Parker, and F. B. Freese 17
  Effects of continued use of, in the diet. L. P. Laug, L. A. Garavelli, and T. P. Nash, Jr. 364
  Growth of molds in, as influenced by acidity, G. W. Kirby, C. N. Frey, and L. Atkin 244
  In vitro analysis of. L. P. Laug, L. A. Garavelli, and T. P. Nash, Jr. 358
  Manufacture of, as related to nutritive value. R. B. French and H. A. Mattill 371
  Observations on the nutritive value of. Katherine Eyerly, Charles Oclassen, and J. A. Killian 377
  Occurrence of acetylmethylcarbinol in, and flavor of. F. Visser't Hooft, and F. J. G. deLeeuw 213
  proteins, biological value of. R. B. French and H. A. Mattill 366, 370, 371
  Rye
    Availability of carbohydrates in, as compared to white or whole wheat bread. L. P. Laug, L. A. Garavelli, and T. P. Nash, Jr. 360, 364
    Biological value of. R. B. French and H. A. Mattill 366, 370, 371
    Copper and iron content of. V. C. Myers, D. G. Remp, and F. C. Bing ... 373
    Vitamin B (B_1) content of. Agnes Fay Morgan and Hilda Frederick 396
  Soybean
    Composition of, and comparison with other breads. L. H. Bailey, R. G. Capen, and J. A. LeClerc 466
    Cost of. L. H. Bailey, R. G. Capen, and J. A. LeClerc 469
  Vitamin B (B_1) value of. (Pigeon maintenance procedure.) Agnes Fay Morgan and Hilda Frederick 399
  White
    Availability of carbohydrates in, as compared to whole wheat and rye bread. L. P. Laug, L. A. Garavelli, and T. P. Nash, Jr. 360, 364
    Biological value of. R. B. French and H. A. Mattill 366, 370, 371

Page

Copper and iron cotent of. V. C. Myers, D. G. Remp, and F. G. Bing.... 373
Vitamin B (B_1) content of. Agnes Fay Morgan and Hilda Frederick 397
Whole Wheat
Biological values of. R. B. French and H. A. Mattill 371
Copper and iron content of. V. C. Myers, D. G. Remp, and F. C. Bing.... 373
Effect of temperature on the vitamin B (B_1) content of. Agnes Fay Morgan and Hilda Frederick 394
Relative rate of absorption of carbohydrates of, as compared to white or rye bread. L. P. Laug, L. A. Garavelli, and T. P. Nash, Jr. 360, 364
Vitamin B (B_1) content of. Agnes Fay Morgan and Hilda Frederick. 394, 397, 399
Vitamin G (B_2) content of. Agnes Fay Morgan and Marion J. Hunt 417
Bread crumb
Variation of color with grade of. J. C. Baker, H. K. Parker, and F. B. Freese 21
Vitamin B (B_1) content of, effect of baking temperatures on. Agnes Fay Morgan and Hilda Frederick 394, 400
Bread crust, vitamin B (B_1) content of, effect of baking temperatures on. Agnes Fay Morgan and Hilda Frederick 394, 400
Bread doughs
Effect of mixing and fermentation upon the colloidal properties of. Oscar Skovholt and C. H. Bailey 314, 315, 318
Effect of mixing and fermentation upon the protein structure of. Oscar Skovholt and C. H. Bailey 312, 313, 316, 318
Free and bound water in. Oscar Skovholt and C. H. Bailey 321
Reducing sugars in, after extended mixing. Oscar Skovholt and C. H. Bailey 351
Bread-making ingredients, vitamin B (B_1) content of. Agnes Fay Morgan and Hilda Frederick 398
Brinson, G. A., and G. H. Cutler. The granulation of whole wheat meal and a method of expressing it numerically 120
Bromate differential test
Value of, for classifying soft red winter wheat flours. E. G. Bayfield 15
Value of, for classifying wheat. M. J. Blish and R. M. Sandstedt 653
Brooke, Mary M. Presidential Message 436
Brown-Duval Moisture Tester
Efficiency of, for determining the moisture content of wheat, oats, barley. W. H. Cooke, J. W. Hopkins, and W. F. Geddes 238
Efficiency of, for determining the moisture content of barley malt. D. A. Coleman and S. R. Snider 627, 628
Buffer solutions, effect of, on the diastasis of wheat starch. C. E. Mangels and J. J. Martin, Jr. 256
McIlvaine's citric acid and sodium phosphate buffer 259
Sorenson's phosphate buffer 259
Walpole's acetate buffer 259
Bunzell, H. H. The Bunzell-Becker moisture determination apparatus 54
Burkhart, B. A., J. G. Dickson, H. L. Shands, and A. D. Dickson. Barley and malt studies: Developing new varieties of barley for malting and their properties 596
Burton-Pitt Moisture Meter, efficiency of. W. H. Cook, J. W. Hopkins, and W. F. Geddes 240
Cake
Chemical analysis of, methods of procedure for. L. H. Bailey and J. A. LeClerc 200
Chemical composition of. L. H. Bailey and J. A. LeClerc 178, 179
Composition of, compared to batter. L. H. Bailey and J. A. LeClerc 193
Consumption of, in the United States. L. H. Bailey and J. A. LeClerc 177
Formulae for. L. H. Bailey and J. A. LeClerc 191
Formulae for. C. A. Glabau and Erna Kepes 111
H-ion concentration of, made with various egg albumens and relation to quality. L. H. Bailey and J. A. LeClerc 110, 206
Scoring of. L. H. Bailey and J. A. LeClerc 197
Types of. L. H. Bailey and J. A. LeClerc 177
Cake and cake-making ingredients. L. H. Bailey and J. A. LeClerc 175
Cost of 189, 190
Effect of varying the amount of liquid 208
Eggs
Chemical composition of 183, 184
Effect of, in various forms on different kinds of cake 207
Importance of and types used as 183
Flavoring materials
Effect of various types on cake quality 209
Types used as 187

Page

Flour
Chemical composition of, and suitability of various grades and classes.. 181, 200
Relation of particle size to cake quality 201
Type of, suitable for gold cake 201
Type of, suitable for pound cake 201
Leavening agents
Effect of various types and percentages of, on the quality of different types of cake 205
Types used as 186
Milk
Chemical composition of 186
Importance of forms used as 186
Moisture retaining agents, effect of, on cake qualtiy 210
Non-glutenous flours, effect of, on various types of cake 210
Shortening
Effect of, on various types of cake 208
Types used 182
Starch and other non-glutenous food materials 189
Sugar
Effect of, on various types of cake 209
Types used and importance of 185
Cake-baking tests
Standardization of cream of tartar for. Laura K. Track 295
with various kinds of egg albumen. C. A. Glabau and Erna Kepes 111, 119
Cake batter, penetration time, pH., specific gravity, and surface tension of, made with various kinds of egg albumen. C. A. Glabau and Erna Kepes 110, 111
Cake flours, differentiation of, by the viscosity of their water suspensions. C. E. Rich 555
Cake industry, importance of, in United States. L. H. Bailey and J. A. LeClerc.. 176
Cake making, history of. L. H. Bailey and J. A. LeClerc 175
Cake-making ingredients, approximate percentages of, in various types of cakes. L. H. Bailey and J. A. LeClerc 180
Cake-making procedures. L. H. Bailey and J. A. LeClerc 193
Baking 196
Temperatures of baking 197
Mixing 194
Creaming method 195
Single stage method 195
Speed of 196
Temperature of 196
Cakes
Ingredients of, and percentage composition. L. H. Bailey and J. A. LeClerc.. 192
Photomicrographic studies of, made with various kinds of egg albumen. C. A. Glabau and Erna Kepes 113
Capen, R. G., J. A. LeClerc, and L. H. Bailey. The composition and characteristics of soybeans, soybean flour, and soybean bread 441
Carbohydrates of bread (non-cellulose), availability of, for nutrition. L. P. Laug, L. A. Garavelli, and T. P. Nash, Jr. 364
Carotene content
of wheat flours. A. G. Simpson 571
of wheat, genetic basis for, W. W. Worzella and G. H. Cutler 712
Carotenoid pigments (wheat)
Gasoline extracts of wheat. M. C. Markley and C. H. Bailey 33
Influence of granulation of sample on the determination of. W. W. Worzella and G. H. Cutler 709
Method for determination of, in small samples of wheat. M. C. Markley and C. H. Bailey 49
with special reference to varieties and strains. W. W. Worzella and G. H. Cutler 710
Carter-Simon oven, efficiency of, for determining the moisture content of barley malt. D. A. Coleman and S. R. Snider 728
Catalase, flour, solubility of. M. J. Blish and C. E. Bode 139
Catalase activity, wheat flour. M. J. Blish and C. E. Bode 133
Comparison with diastatic activity 136
Factors affecting
aging and bleaching 140
fine grinding 140
grade of flour 136
treatment of digest 139
Nature of 137
Cereal grains, chemical composition of some common. F. L. Gunderson 474

Page
Cereals in nutrition today. F. L. Gunderson 473
Coleman, D. A.
Book review: Starch and flour quality, by C. L. Alsberg 306
Chairman. Report of committee on standardization of methods for brewing and malting control 575
and S. R. Snider. The determination of moisture in barley malt. A comparison of methods and apparatus for this purpose 621
Colloidal properties of doughs, effect of mixing and fermentation upon. Oscar Skovholt and C. H. Bailey 314, 315, 318
Color in flour products, variation of, as the result of treatment. J. C. Baker, H. K. Parker, and F. B. Freese 22
Commercial baking tests, correlation of, with experimental baking tests. J. Freilich, S. McHugh, and C. N. Frey 668
Comparative tolerances of human subjects for
carbohydrates in bread. Katherine Eyerly, Charles Oclassen, and J. A. Killian 384–388
sugars. Katherine Eyerly, Charles Oclassen, and J. A. Killian 384–388
Comparison of Blish and Sandstedt procedure with a modified Rumsey procedure for the estimation of diastatic activity. W. F. Geddes and W. J. Eva.... 402, 406
Cook, W. H., J. W. Hopkins, and W. F. Geddes. Rapid determination of moisture in grain 230
Correlation of experimental and commercial baking tests. J. Freilich, S. McHugh, and C. N. Frey 668
Croze, A. B., and C. G. Ferrari. Book review: Recherches sur l'Insaponifiable de l'Huile de Froment, by A. Dangoumau 715
Cutler, G. H. and G. A. Brinson. The granulation of whole wheat meal and a method of expressing it numerically 120
Cutler, G. H. and W. W. Worzella. Carotenoid pigments in wheat with special reference to varieties and strains 708
Davies Moisture Meter, efficiency of, for determining moisture in grain. W. H. Cook, J. W. Hopkins, and W. F. Geddes 239
Davis, Claude F. Forced draft as an aid in air-oven moisture tests 512
Definition and measurement of flour strength as an inherent property of wheat. M. J. Blish and R. M. Sandstedt 653
deLeeuw, F. J. G., and F. Visser't Hooft. The occurrence of acetylmethylcarbinol in bread and its relation to bread flavor 213
Determination of the carotenoid pigment concentration of small samples of whole wheat. M. C. Markley and C. H. Bailey 49
Determination of the freezing point of bread doughs. Oscar Skovholt and C. H. Bailey 335
Diastasis of wheat starch
Effect of different buffers on the. C. E. Mangels and J. J. Martin, Jr..... 256
Effect of pH on, with cooked starch as the substrate. C. E. Mangels and J. J. Martin, Jr. 264
Effect of type of substrate on. C. E. Mangels and J. J. Martin, Jr. 265
Diastatic activity
Comparative efficiency of Blish and Sandstedt, and a Modified Rumsey procedure for the estimation of. W. F. Geddes and W. J. Eva 402, 406
Factors affecting maltose values in the ferricyanide method of determination for. H. W. Putnam, M. J. Blish, and R. M. Sandstedt 494
Method for the estimation of. Roy Irvin 142
Diastatic activity, wheat
Factors affecting. C. O. Swanson 89
class of wheat 93–97
environmental conditions 93–97
granulation of meal 92
milling procedure 98
moisture content of wheat 99
structure of the wheat 103
tempering of wheat 100, 101
variety of wheat 93–97
Rumsey procedure, effect of shortening the digestion period on the reliability of. W. R. Steller, M. C. Markley, and C. H. Bailey 271
Diastatic activity, wheat and flour. Comparison of results on composite samples with means of determinations upon individual samples. W. R. Steller, M. C. Markley, and C. H. Bailey 269
Diastatic activity, wheat flour
A third limiting factor influencing. W. R. Steller, M. C. Markley and C. H. Bailey 274
Factors affecting the. W. R. Steller, M. C. Markley, and C. H. Bailey 268
Rumsey procedure, effect of shortening the digestion period on the reliability of. W. R. Steller, M. C. Markley and C. H. Bailey 270

Page

Diastatic supplements for the A.A.C.C. baking test II. Quick Landis, C. N. Frey, and S. A. McHugh 302
Dickson, A. D., B. A. Burkhart, J. G. Dickson, and H. L. Shands. Barley and malt studies: I. Developing new varieties of barley for malting and their properties 596
Dickson, J. G., H. L. Shands, A. D. Dickson, and B. A. Burkhart. Barley and malt Studies: I. Developing new varieties of barley for malting purposes and their properties 596
Dough, gas production and expansion in, apparatus for measuring. Roy Irvin.... 146
Dough-mixer calibration, methods and apparatus for. Quick Landis and J. Freilich 665
Dough-mixing studies
  Effect of extended mixing on the freezing point of bread doughs. Oscar Skovholt and C. H. Bailey 354
  Effect of mixing time on the protein structure and colloidal properties of dough. Oscar Skovholt and C. H. Bailey 312, 314
  Experiments with flours milled from different classes of wheat with respect to mixing time. Ray Weaver and C. C. Fifield 281
Dough-molding studies, hand *versus* machine manipulation, variability in, as evidenced by loaf volume. J. G. Malloch and J. W. Hopkins 59
Dough-punching studies, hand *versus* machine manipulation, variability in, as evidenced by loaf volume. J. G. Malloch and J. W. Hopkins 59
Dough Sheeter, further tests with the. J. Freilich 276
Dry skim-milk
  Effect of, on the freezing point of bread doughs. Oscar Skovholt and C. H. Bailey 340
  Effect of, upon the mobility of bread doughs as recorded by the Farinograph. Oscar Skovholt and C. H. Bailey 315, 318
Effect of diets containing large fractions of bread upon the depoistion of calcium in the bones of rats. Katherine Eyerly, Charles Oclassen, and J. A. Killian 381, 383
Effect of diets containing large fractions of bread upon rate of rat growth. Katherine Eyerly, Charles Oclassen, and J. A. Killian 378
Effect of different buffers and types of substrate on the diastasis of wheat starch. C. E. Mangels and J. J. Martin, Jr. 256
Effect of type of substrate on diastasis of wheat starch. C. E. Mangels and J. J. Martin, Jr. 264, 265
Eggs. L. H. Bailey and J. A. LeClerc.
  Chemical composition of 83, 184
  Effect of, in various forms on different kinds of cake 207
  Forms of, and percentages used as a cake ingredient 183
Eggs (whole dried) Vitamin G (B_2) content of. Agnes Fay Morgan and Marion J. Hunt 416
Egg albumens, various types of, C. A. Glabau and Erna Kepes.
  Baking tests with 111
  Beating properties of 111
  dried, photomicrographic studies of 116
  fermented, baking tests with 117–119
  H-ion concentration values of 110, 117
  Sp. Gr. of 119
  Standardization of, for the official cake baking test 108
  Study of the chemical and physical properties of 108
  Surface tension measurements of 110
  Swelling powers of 110
Electrical moisture testers, efficiency of
  for barley-malt. D. A. Coleman and S. R. Snider 664
  for grains. W. H. Cook, J. W. Hopkins, and W. F. Geddes 238
Enzymes
  Catalase in wheat flour. M. J. Blish and C. E. Bode 133
  diastatic, location of, in wheat. C. O. Swanson 103
  proteolytic, effect of, on the mobility of bread doughs during mixing as recorded by the Farinograph. Oscar Skovholt and C. H. Bailey 315
  Rôle of, in malting and mashing. H. W. Rohde 616
Erratum. Studies on the vitality of wheat III. Vitality and the action of heat on wheat seeds. R Whymper and A. Bradley 88
Estimation of diastatic strength. Roy Irvin 142
Eva, W. J., and W. F. Geddes. A comparative study of the Blish and Sandstedt and a modified Rumsey procedure for the estimation of diastatic activity 402
Experimental Baking Test (Standard)
  Notes on the interpretation of. R. T. Bohn 61
    Absorption 62
    Crumb color 66

Page

Crust color 65
Grain and texture 66
Loaf type and outside appearance 65
Loaf volume 63
Reaction to mixing 67
Reaction to bromate 67
Use of, in classifying "strength" of wheats. M. J. Blish and R. M. Sandstedt 653
Experimental baking tests
Correlation with commercial baking tests. J. Freilich, S. McHugh, and C. N. Frey 668
Procedure for use with very small quantities of flour. W. F. Geddes and T. R. Aitken 696
Variability in, using hand and machine manipulation. J. G. Malloch and J. W. Hopkins 57
Experimental cake-baking test, type of milk powder suitable for. R. T. Bohn 300
Experimental malting. J. G. Dickson, H. L. Shands, A. G. Dickson, and B. A. Burkhart.
Comparison with commercial malting 604
Equipment 601
Procedure 601
Experimental milling procedures with 100 grams of wheat. W. F. Geddes and T. R. Aitken 696
Eyerly, Katherine, Charles Oclassen, and J. A. Killian. Observations on the nutritional value of bread in the diet of human subjects and experimental animals 377
Factors affecting the diastatic activity of wheat flour II. W. R. Steller, M. C. Markley, and C. H. Bailey 268
Factors affecting maltose values in the ferricyanide method for diastatic activity. H. W. Putnam, M. J. Blish, and R. M. Sandstedt 494
Farinograph
Calibration of dough mixers by use of. Quick Landis and J. Freilich 665
Determining proteolytic activity in dough by use of. Quick Landis 25
Fermentation, effect of, on the protein structure and colloidal properties of doughs. Oscar Skovholt and C. H. Bailey 312–316, 318
Fermentograph, use of, in measuring yeast variability. Cleo Near and B. Sullivan 507
Ferrari, C. G., and A. B. Croze. Book review: Recherches sur l'Insaponifiable de l'Huile de Froment, by A. Dangoumau 715
Fifield, C. C., and Ray Weaver. Mixing-time experiments with flours milled from different classes of wheats 281
Flavone content of wheat flours. A. G. Simpson 571
Flavor in bread, relation of, to acetylmethylcarbinol content. F. Visser't Hooft and F. J. G. de Leeuw 213, 228
Flavoring materials, forms of, used in cake making. L. H. Bailey and J. A. LeClerc 187, 210
Flour
Aging of, and nature of process. Natalie P. Kozmin 165
Ash content of various grades and classes of. L. H. Bailey and J. A. LeClerc 181
Chemical composition of, as related to particle size. L. H. Bailey and J. A. LeClerc 202
Gassing power of, study of manometric procedure for determining. R .M. Sandstedt 517
Granulation of, in relation to cake flour quality. L. H. Bailey and J. A. LeClerc 201
Phosphated, determinaion of the ash content of the plain flour in. R. A. Barackman and E. A. Vaupel 488
Physical and chemical composition of, as related to cake-making. L. H. Bailey and J. A. LeClerc 181, 182
Protein content of various grades and classes of. L. H. Bailey and J. A. LeClerc 181
Self-rising, determination of the ash of the plain flour in. R. A. Barackman and E. A. Vaupel 488
soybean, use of, in bread making. L. H. Bailey, R. G. Capen, and J. A. LeClerc 462
Types of, suitable for various kinds of cake. L. H. Bailey and J. A. LeClerc 200
Flour ash
Determination of, in the original flour of phosphated and self-rising flours. G. A. Shuey 289
See also R. A. Barackman and E. A. Vaupel 486
Relation of, to flavone content. A. G. Simpson 572
Flour catalase
activity, factors affecting and nature of. M. J. Blish and C. E. Bode 136, 137, 139, 140

Page
Solubility of. M. J. Blish and C. E. Bode 139
Flour color
Determination of, by means of Maxwell discs. J. C. Baker, H. K. Parker, and F. B. Freese 17
Relation of, to translucency of sample. J. C. Baker, H. K. Parker, and F. B. Freese 24
Flour-containing products, chemical composition of. L. H. Bailey and L. A. LeClerc 179
Flour proteins
Peptization of, by organic acids and comparison with inorganic acids. C. E. Mangels and J. J. Martin, Jr. 150–156
Effect of concentration of acid and variety of wheat on. C. E. Mangels and J. J. Martin, Jr. 150–156
Flour strength, definition and measurement of. M. J. Blish and R. M. Sandstedt
Food costs, comparative. L. H. Bailey, R. G. Capen, and J. A. LeClerc 460
Foods in the diet, classification of. F. L. Gunderson 473
Forced draft as an aid in air-oven moisture tests. Claude F. Davis 512
Frederick, Hilda, and Agnes Fay Morgan. Vitamin B (B_1) in bread as affected by baking 390
Free and bound water in bread doughs. Oscar Skovholt and C. H. Bailey 321
Freese, F. B., J. C. Baker, and H. K. Parker. The measurement of color in flour and bread by means of Maxwell discs 17
Freilich, Jacob
Further tests with the motor-driven dough sheeter 276
and Quick Landis. Studies on test dough mixer calibration 665
S. McHugh, and C. N. Frey. Correlation of experimental and commercial baking tests 668
French, R. B., and H. A. Mattill. The biological value of the proteins of white, wheat, and rye breads 365
Frey, C. N., L. Atkin, and G. W. Kirby. The growth of bread molds as influenced by acidity 244
Frey, C. N., J. Freilich, and S. McHugh. Correlation of experimental and commercial baking tests 668
Frey, C. N., S. A. McHugh, and Quick Landis. Diastatic supplements for the A.A.C.C. baking test 302
Frisell, B., and W. F. Geddes. An experimental flour mill for 100 gram wheat samples 691
Further tests with the motor-driven dough sheeter. J. Freilich 276
Garavelli, Louise A., T. P. Nash, Jr., and E. P. Laug. A study of the availability of bread carbohydrates 356
Gasoline extract of wheat
Carotene content of, after removal of Xanthophylls. M. C. Markley and C. H. Bailey 35
Diagrammatic separation of the pigments of. M. C. Markley and C. H. Bailey 35
Gassing power of flour, comparative study of the manometric procedure for. R. M. Sandstedt 517
Geddes, W. F.
Chairman. Report of the 1934–35 committee on standardization of laboratory baking 652
and T. R. Aitken. An experimental milling and baking technique requiring 100 grams of wheat 696
and W. J. Eva. A comparative study of the Blish and Sandstedt and a modified Rumsey procedure for the estimation of diastatic activity 402
and B. Frisell. An experimental flour mill for 100 gram wheat samples 691
W. H. Cook, and J. W. Hopkins. Rapid determination of moisture in grain... 230
General report of the 1933–34 committee on cake baking tests. G. L. Alexander.. 294
Glabau, C. A., and Erna Kepes. A study of the physical properties as well as some of the chemical properties of dried egg albumen with the view of standardizing this substance for the official cake-baking test 108
Grades of flour and flavone content, method for determining. A. G. Simpson 572
Grain and texture scores as influenced by formula and method. G. Moen 78
Granulation number of wheat. G. H. Cutler and G. A. Brinson 125
Comparison with wheat dough-ball test values 125
Effect of texture of kernel on 125
Influence of class of wheat on 125, 126
Influence of variety and environment on 125, 127, 128
Gunderson, F. L. Cereals in nutrition today 441
Heat production (human subjects), effect of bread carbohydrates on, and distribution of. Katherine Eyerly, Charles Oclassen, and J. A. Killian 385–388
Hemoglobin production in rats on diets containing bread. V. C. Myers, D. G. Remp, and F. C. Bing 372, 374

Page

H-ion concentration
Cake and cake batter as influenced by kind of leavening agent. L. H. Bailey and J. A. LeClerc 206
Effect of, on diastasis of cooked starch. C. E. Mangels and J. J. Martin, Jr... 264
Effect of, on diastasis of wheat flour in different buffer solutions. C. E. Mangels and J. J. Martin, Jr. 259
Effect of, on growth of *Aspergillus niger*. G. W. Kirby, C. N. Frey, and L. Atkin 248
Relation between pH of cake batter and character of cake. L. H. Bailey and J. A. LeClerc 206
Hlynka, K., and J. G. Malloch. An automatic timing device for use with a Hobart-Swanson Mixer 130
Hopkins, J. W., and J. G. Malloch. Variability in experimental baking using hand and machine manipulation 57
Hopkins, J. W., W. F. Geddes, and W. H. Cook. Rapid determination of moisture in grain 230
Hunt, Marion J., and Agnes Fay Morgan. The vitamin B (B_1) and G (B_2) content of wheat products 411
Irvin, Roy
An improved apparatus for measuring gas production and expansion in doughs 146
Estimation of diastatic strength 142
Kepes, Erna, and C. A. Glabau. A study of the physical properties as well as some of the chemical properties of dried egg albumen with the view of standardizing this substance for the official cake baking test 108
Killian, J. A., Katherine Eyerly, and Charles Oclassen. Observations on the nutritional value of bread in the diet of human subjects and experimental animals 377
Kirby, G. W., C. N. Frey, and L. Atkin. The growth of bread molds as influenced by acidity 244
Kozmin, Natalie. The aging of wheat flour and the nature of this process 165
Kress, C. B. Report of the 1933–34 pie flour committee 158
Landis, Quick
An index of proteolytic activity by use of the Farinograph 25
and J. Freilich. Studies on test dough mixer calibration 665
C. N. Frey, and S. A. McHugh. Diastatic supplements for the A.A.C.C. baking test 302
Lanning, J. H. A study of temperature changes in a small laboratory oven when drying flour at 130° C. 69
Laug, E. P., L. A. Garavelli, and T. P. Nash, Jr. A study of the availability of bread carbohydrates 356
Lawellin, S. J. Book review: Structure and composition of foods. Vol. II. Vegetables, legumes, and fruits, by A. L. and K. B. Winton 714
Leavening agents
Effect of, on the quality of various types of cake. L. H. Bailey and J. A. LeClerc 205
Types and percentages of, used as cake ingredients. L. H. Bailey and J. A. LeClerc 186
LeClerc, J. A.
Report of the cereal section of the A.O.A.C. 84
and L. H. Bailey. Cake and cake-making ingredients 175
L. H. Bailey, and R. G. Capen. The composition and characteristics of soybeans, soybean flour, and soybean bread 441
Limbrick moisture meter, efficiency of. W. H. Cook, J. W. Hopkins, and W. F. Geddes 240
Loaf volume
and bromate differential test. E. G. Bayfield 5, 6, 8, 12
and protein content of soft red winter wheat. E. G. Bayfield 5, 6, 8, 12
and viscosity of flour-water suspensions of soft red winter wheat flours. E. G. Bayfield 5, 6, 8, 12
Variability in, hand *versus* machine punching and molding. J. G. Malloch and J. W. Hopkins 59
Malloch, J. G., and K. Hlynka. An automatic timing device for use with a Hobart-Swanson Mixer 130
Malloch, J. G., and J. W. Hopkins. Varibaility in experimental baking using hand and machine manipulation 57
Malt
Collaborative studies with respect to the analysis of. D. A. Coleman 575
determination of moisture in, relative accuracy of methods for. D. A. Coleman and S. R. Snider 621
Recommendations of the malt analysis committee with respect to future analytical studies with. D. A. Coleman 595

Page
Variances between laboratories in analytical results for. D. A. Coleman.. 576, 588
Variances in the procedures for the physical and chemical analysis of. D. A. Coleman 597
Malting, procedure for malting barley. H. W. Rohde 610
Malting and mashing. H. W. Rohde 618
Malting barleys
Comparative malting trials with. J. G. Dickson, H. L. Shands, A. D. Dickson, and B. A. Burkhart 605
Quality characteristics of, and need for research. J. G. Dickson, H. L. Shands, A. D. Dickson, and B. A. Burkhart 600
Maltose values, factors affecting, in the ferricyanide method. H. W. Putnam, M. J. Blish, and R. M. Sandstedt 494
M. A. S. C. method for determining moisture in barley malt, accuracy of. D. A. Coleman and S. R. Snider 628
Mangels, C. E., and J. J. Martin, Jr.
Effect of different buffers and type of substrate on the diastasis of wheat starch 256
Peptization of wheat flour proteins by organic acids 149
Markley, M. C., and C. H. Bailey
Determination of the carotenoid pigment concentration of small samples of whole wheat 49
The nature of the pigments of the gasoline extract of wheat 33
The pigments of the dilute alcohol or acetone extract of whole wheat meal 40
Markley, M. C., C. H. Bailey, and W. R. Steller. Factors affecting the diastatic activity of wheat flour. II. 268
Martin, J. J., Jr., and C. E. Mangels
Effect of different buffers and type of substrate on the diastasis of wheat starch 256
Peptization of wheat flour proteins by organic acids 149
Mashing procedures used in preparing brewer's worts. H. W. Rohde 618
Mattill, H. A., and R. B. French. The biological value of the proteins of white, wheat, and rye breads 365
Maxwell discs, use of, in determining color in flour and bread. J. C. Baker, H. K. Parker, and F. B. Freese 17
McHugh, S., C. N. Frey, and J. Freilich. Correlation of experimental and commercial baking tests 668
McHugh, S. A., Quick Landis, and C. N. Frey. Diastatic supplements for the A.A.C.C. baking test 302
Methods
Baking test procedures for determining flour strength. M. J. Blish and R. M. Sandstedt 653
Cake baking procedures for testing soft wheat flours. L. K. Track 295
Calibration of dough mixers. Quick Landis and J. Freilich 665
Comparative study of manometric procedure for determining gassing power of flour. R. M. Sandstedt 517
Determination of
acetylmethylcarbinol in bread or dough. F. Visser't Hooft and F. J. G. de Leeuw 215
Ash content in the plain flour in phosphated and self-rising flours. R. A. Barackman and E. A. Vaupel 487
See also G. A. Shuey 290
carotenoid pigment concentration in small samples of whole wheat. M. C. Markley and C. H. Bailey 49
catalase activity in flour. M. J. Blish and C. E. Bode 134
color in bread and flour by means of Maxwell discs. J. C. Baker, H. K. Parker, and F. B. Freese 17
effect of acidity on mold growth. G. W. Kirby, C. N. Frey, and L. Atkin 246
effect of mixing and fermentation upon the protein structure of dough. Oscar Skovholt and C. H. Bailey 310
flavone content of flour. A. G. Simpson 571
freezing point of bread dough. Oscar Skovholt and C. H. Bailey 326
"grade" of wheat flour. A. G. Simpson 572
moisture in barley malt; comparative accuracies of different methods and apparatuses. D. A. Coleman and S. R. Snider 628
moisture in cereals and other substances by means of the Bunzell-Becker Apparatus. H. H. Bunzell 54
moisture in grain by
Brown-Duvel Moisture Tester. W. H. Cook, J. W. Hopkins, and W. F. Geddes 236
electrically operated moisture meters. W. H. Cook, J. W. Hopkins, and W. F. Geddes 238
130° C. air-oven procedure. W. H. Cook, J. W. Hopkins, and W. F. Geddes 234

Page

vacuum-oven procedure. W. H. Cook, J. W. Hopkins, and W. F. Geddes 232
proteolytic activity of dough by means of the Farinograph. Quick Landis.. 31
viscosity of flour-water suspensions. E. G. Bayfield 3
vitamin B (B_1) and G (B_2) content of wheat products by the rat-growth method. Agnes Fay Morgan and Marion J. Hunt 411
whole meal "time" tests, factors influencing. E. G. Bayfield 559
"yellowness" in wheat flour. A. G. Simpson 570
Experimental malt procedures. J. G. Dickson, H. L. Shands, A. D. Dickson, and B. A. Burkhart 601
Experimental milling test with 100 grams of wheat. W. F. Geddes and T. R. Aitken 696
Factors affecting maltose values in the ferricyanide method for diastatic activity. H. W. Putnam, M. J. Blish, and R. M. Sandstedt 494
Feeding methods in relation to vitamin studies. Agnes Fay Morgan and Hilda Frederick 391
for calculating bound water in bread doughs. Oscar Skovholt and C. H. Bailey 342
for estimation of diastatic strength. Roy Irvin 142
for experimental baking test using 25 gram doughs. W. F. Geddes and T. R. Aitken 696
for measurement of gas production and expansion in doughs. Roy Irvin 146
for mixing cake ingredients. L. H. Bailey and J. A. LeClerc 193
for moisture determinations, use of forced draft in. C. F. Davis 512
for separation of carotene from Xanthophyll in naptha extract of wheat. M. C. Markley and C. H. Bailey 34
for standardizing items for scoring self-rising biscuits. H. G. Walters 162
Influence of type of oven, oven-load, temperature, time and position of mercury bulb of thermometer on accuracy of moisture test results by 130° C. method. J. H. Lanning 77
Modified Rumsey procedure for the determination of diastatic activity. W. F. Geddes and W. J. Eva 402
Wheat meal granulation test. G. H. Cutler and G. A. Brinson 121
See also E. G. Bayfield 559

Milk
Chemical composition of various forms of. L. H. Bailey and J. A. LeClerc.... 186
Effect of varying the quantity of, on the quality of gold cake. L. H. Bailey and J. A. LeClerc 208
Forms and percentages of, used as a cake ingredient. L. H. Bailey and J. A. LeClerc 186
Milk (whole dried), vitamin G (B_2) content of. Agnes Fay Morgan and Marion J. Hunt 416
Milk-powder for the experimental cake-baking test. R. T. Bohn 300
Minutes of the twenty-first annual meeting of the A.A.C.C. M. D. Mize 419
Mixing-time experiments with flours milled from different classes of wheat. Ray Weaver and C. C. Fifield 281
Mize, M. D.
Annual report of the Secretary-Treasurer 172
Minutes of the twenty-first annual meeting of the A.A.C.C. 419
Modification of the Soxhlet extractor. E. W. Blank 343
Moen, G. Observations on grain and texture 78
Moisture
Determination of, by air-oven; effect of forced draft. C. F. Davis 512
Effect of, on malting efficiency of barley. J. G. Dickson, H. L. Shands, A. D. Dickson, and B. A. Burkhart 603
Moisture content
of barley malt, methods for the determination of; relative accuracies. D. A. Coleman and S. R. Snider 628
of corn, freshly picked. Lawrence Zeleny 537
of grain, accuracy of methods for determining. W. H. Cook, J. W. Hopkins, and W. F. Geddes 230
Moisture determinations
Bunzell-Becker apparatus for. H. H. Bunzell 54
Sources of error in small ovens when using the 130° C. method. J. H. Lanning 69
Study of apparatus for the purpose of, with barley malt. D. A. Coleman and S. R. Snider 621
Mold in bread, effect of acidity on the control of. G. W. Kirby, C. N. Frey, and L. Atkin 244
Molding studies, hand *versus* the dough sheeter. J. Freilich 279, 280
Morgan, Agnes Fay, and Hilda Frederick. Vitamin B (B_1) in bread as affected by baking 390

Page

Morgan, Agnes Fay, and Marion J. Hunt. The vitamin B (B_1) and G (B_2) content of wheat products 411
Myers, V. C., D. G. Remp, and F. C. Bing. Hemoglobin production in rats on diets containing bread 372
N–A colorimeter for measuring color in bread and flour. J. C. Baker, H. K. Parker, and F. B. Freese 18
Nash, T. P., Jr., E. P. Laug, and L. A. Garavelli. A study of the availability of bread carbohydrates 356
Near, Cleo and B. Sullivan
A study of yeast variability as measured by the Fermentograph 506
The use of the Farinograph as an accurate measure of absorption 527
Nitrogen distribution, seed of *Zea Mays*, different stages of development. Lawrence Zeleny 539
Non-protein nitrogen, seed of *Zea Mays*, different stages of development. Lawrence Zeleny 540
Notes on interpretation of standard baking test. R. T. Bohn 61
Nutrition
Chemical substances concerned in. F. L. Gunderson 474
Cost and nutrition contributions of important food group. F. L. Gunderson.... 482
Energy expenditures under different conditions. F. L. Gunderson 476
100-calorie portions of foods in common measures. F. L. Gunderson 475
Roll of cereals in. F. L. Gunderson 473, 476
Observations on grain and texture. G. Moen 78
Observations on the nutritional value of bread in the diet of human subjects and experimental animals. Katherine Eyerly, Charles Oclassen, and J. A. Killian.. 377
Oclassen, Charles, J. A. Killian, and Katherine Eyerly. Observations on the nutritional value of bread in the diet of human subjects and experimental animals 377
130° C. air-oven method
Accuracy of, for determining the moisture content of grain. W. H. Cook, J. W. Hopkins, and W. F. Geddes 234
for determining the moisture content of barley malt. D. A. Coleman and S. R. Snider 628
Oven procedures, comparison of accuracies
for determining moisture in grain. W. H. Cook, J. W. Hopkins, and W. F. Geddes 232, 234
for determining moisture in barley malt. D. A. Coleman and S. R. Snider 628
Parker, H. K., F. B. Freese, and J. C. Baker. The measurement of color in flour and bread by means of Maxwell discs 17
Pastry flours, differentiation of, by the viscosity of their water suspensions. C. E. Rich 555
Peptization of wheat flour proteins by organic acids. C. E. Mangels and J. J. Martin, Jr. 149
Per capita consumption of selected foods. L. H. Bailey, R. G. Capen, and J. A. LeClerc 457
Phosphated flour, determination of the ash in the plain flour of. R. A. Barackman and E. A. Vaupel 488
See also G. A. Shuey 289
Pigments in flour. A. G. Simpson 569
Pigments in wheat
Acetone soluble. M. C. Markley and C. H. Bailey 40
Alcohol (dilute) soluble. M. C. Markley and C. H. Bailey 40
Gasoline soluble. M. C. Markley and C. H. Bailey 33
Method for determining, in small samples. M. C. Markley and C. H. Bailey.. 49
Varieties of. W. W. Worzella and G. H. Cutler 708
Plant breeding, wheat-meal granulation test an aid in. G. H. Cutler and G. A. Brinson 129
Presidential Message. Mary M. Brooke 436
Protein
flour, various grades and classes. L. H. Bailey and J. A. LeClerc 181
Peptization of, by inorganic acids; comparison with organic acids. C. E. Mangels and J. J. Martin, Jr. 150, 151
Peptization of, by organic acids, effect of concentration of acid and variety of wheat on. C. E. Mangels, J. J. Martin, Jr. 150, 153, 154, 156
Protein content and loaf volume of soft red winter wheat. E. G. Bayfield 5, 6, 8, 12
Protein of grains and other seeds, comparative composition of. L. H. Bailey, R. G. Capen, and J. A. LeClerc 456
Protein quality
and loaf volume of soft red winter wheat flours. E. G. Bayfield 7, 9, 10
Effect of soil fertility on. E. G. Bayfield 6, 7, 8, 9, 12
Effect of wheat variety on. E. G. Bayfield 8
Effect of variety at different fertility levels on. E. G. Bayfield 12

Page

Protein structure of doughs, effect of mixing and fermentation on. Oscar Skovholt and C. H. Bailey 312, 313, 316, 318
Proteins of wheat, white, and rye bread, biological value of. R. B. French and H. A. Mattill 366, 370, 371
Proteolytic activity, use of Farinograph in determining. Quick Landis 25
Proteolytic enzymes. Effect of, on the mobility of bread doughs during mixing as recorded by the Farinograph. Oscar Skovholt and C. H. Bailey 315
Putnam, H. W., M. J. Blish, and R. M. Sandstedt. Factors affecting maltose values in the ferricyanide method for diastatic activity 494
Raisins, seedless, vitamin B (B_1) content of. Agnes Fay Morgan and Hilda Frederick 398
Rapid determination of moisture in grain. W. H. Cook, J. W. Hopkins, and W. F. Geddes 230
Recent developments of European brewing chemistry. E. Singruen 645
Registration twenty-first annual meeting of the A.A.C.C. 434
Remp, D. G., F. C. Bing, and V. C. Myers. Hemoglobin production in rats on diets containing bread 372
Report of
  Cereal Section A.O.A.C, 1934. J. A. LeClerc 84
  Secretary-Treasurer for 1934. M. D. Mize 172
Reports of Committees of A.A.C.C. for 1933–34
  Committee on Cake Baking Tests. G. L. Alexander 294
  Committee on Pie Flour Tests. C. B. Kress 158
  Committee on Self-Rising Flours. H. G. Walter 161
Reports of Committees of A.A.C.C. for 1934–35
  Auditing Committee for Cereal Chemistry. J. A. LeClerc and L. H. Bailey ... 431
  Auditing Committee for Secretary-Treasurer. H. H. Johnson 174
  Committee on the Cake-Baking Test. G. L. Alexander 294
  Committee on Definition of Moisture Basis for Laboratory Reports. R. K. Durham 429
  Committee on Definition of Technical Terms. C. H. Bailey 431
  Committee on Employment. C. B. Morison 428
  Committee on Methods for Brewing and Malting Control. D. A. Coleman 575
  Committee on Standardization of Experimental Baking-Test. W. F. Geddes... 652
  Committee on Testing Biscuit and Cracker Flours. R. M. Bohn 544
  Committee on Testing Rye Flours. L. H. Bailey 552
  Executive Committee. Washington Platt 425
  History Committee. R. J. Clark 426
  Methods of Analysis Committee. B. Sullivan 505
  Nominating Committee. L. D. Whiting 421
  Osborne Medal Award Committee. Paul Logue 427
  Publicity Committee. H. W. Putnam 428
  Resolutions Committee. C. B. Morison 432
  Subcommittee on Viscosity. E. G. Bayfield 532
Rice polish (tiki-tiki), vitamin B (B_1) content of. Agnes Fay Morgan and Hilda Frederick 398
Rich, C. E. Some observations on the differentiation of cake and pastry flours by the viscosity of their water suspensions 555
Rohde, H. W. Malting and mashing 610
Rumsey procedure for determining diastatic activity, comparison with Blish and Sandstedt method. W. F. Geddes and W. J. Eva 405, 406
Rye, vitamin B (B_1) content of. Agnes Fay Morgan and Hilda Frederick.... 396, 399
Rye bread
  Biological values for. R. B. French and H. A. Mattill 370, 371
  Copper and iron content of. V. C. Myers, D. G. Remp, and F. C. Bing 373
  Vitamin B (B_1) content of. Agnes Fay Morgan and Hilda Frederick.... 396, 399
Salt
  Effect of, on the quality of various types of cake. L. H. Bailey and J. A. LeClerc 210
  Importance of, as a cake ingredient. L. H. Bailey and J. A. LeClerc 188
Sandstedt, R. M.
  A collaborative study of the manometric determination of gassing power 517
  and M. J. Blish. Definition and measurement of flour strength as an inherent property of wheat 653
  H. W. Putnam and M. J. Blish. Factors affecting maltose values in the ferricyanide method for diastatic activity 494
Self-rising flour, determination of the ash in the plain flour of. R. A. Barackman and E. A. Vaupel 488
  See also G. A. Shuey 289
Shands, H. L., A. D. Dickson, B. A. Burkhart, and J. G. Dickson. Barley and malt studies: I Developing new varieties of barley for malting and their properties 596

Page

Shortening
Effect of, on various types of cake. L. H. Bailey and J. A. LeClerc 208
Types and percentages of, used as a cake ingredient. L. H. Bailey and J. A. LeClerc 182
Shuey, G. A. A modified method for the removal of added ingredients from phosphated and self-rising flours in order to determine the ash content of the original flour 289
Simpson, A. G. A simple method for determining the "yellowness" and grade of wheat flours 596
Singruen, E. Recent developments of European brewing chemistry 645
Skovholt, Oscar, and C. H. Bailey
Free and bound water in bread doughs 321
The effect of mixing and fermentation upon the protein structure and colloidal properties of doughs 307
Snider, S. R., and D. A. Coleman. The determination of moisture in barley malt; a comparison of methods and apparatus for this purpose 621
Soft winter wheat studies. E. G. Bayfield
III. The effect of some factors influencing viscosity and protein 1
IV. Some factors producing variations in wholemeal "time" data 559
Soil fertility
Effect of, on the quantity and quality of protein in wheat. E. G. Bayfield 5, 6, 8, 12
Effect of, on protein content of soft red winter wheat. E. G. Bayfield 5, 6, 8
Some factors which affect the diastatic activity in wheat. C. O. Swanson 89
Some observations on the differentiation of cake and pastry flours by the viscosity of their water suspensions. C. E. Rich 555
Soybeans. L. H. Bailey, R. G. Capen, and J. A. LeClerc
Acreage, production, and price of, in the United States 442
Chemical composition of 444
Composition of the component parts of 448
Extraction of oil from 448
Fat and protein content of 445
Processes for the removal of the bitter taste from 446
Production of, in foreign countries 443
Uses for 443
Yield of oil and meal from 449
Soybean flour. L. H. Bailey, R. G. Capen, and J. A. LeClerc
Baking experiments with 463
Carbohydrates of 455
Chemical composition of 449, 450, 452
Cost of calcium in 462
Cost of carbohydrates in 462
Cost of minerals in 459
Cost of protein and fat in 458
enzymes of, effect on bread 467
Methods for the analysis of 449
Minerals of 454
output in the United States 452
Use of, in baking 462
Rôle of, in the diet 458
Standard experimental cake test, use of, for determining the quality of egg albumen. C. A. Glabau and Erna Kepes 112, 118
Standardization of cream of tartar for the experimental cake baking test. L. K. Track 295
Starch, as a cake ingredient. L. H. Bailey and J. A. LeClerc 189
Starch, cooked, effect of different buffer solutions at different pH levels on the diastasis of. C. E. Mangels and J. J. Martin, Jr. 264
Starch, raw, effect of different buffer solutions at different pH levels on the diastasis of. C. E. Mangels and J. J. Martin, Jr. 260
Stateler, E. S. Book review: The law of patents for chemists, Second Ed., by Joseph Rossman 305
Steller, W. R., M. C. Markley, and C. H. Bailey. Factors affecting the diastatic activity of wheat flour II 268
Studies on test dough mixer calibration. Quick Landis and J. Freilich 665
Sugar
Effect of, as a cake ingredient on various types of cake. L. H. Bailey and J. A. LeClerc 209
Effect of, on the bound water of doughs. Oscar Skovholt and C. H. Bailey... 340
Effect of, on the freezing point of bread doughs. Oscar Skovholt and C. H. Bailey 337
Importance of, in cake making. L. H. Bailey and J. A. LeClerc 185

Page
Kinds of, used in cake making. L. H. Bailey and J. A. LeClerc 185
reducing, formation of, in bread doughs during mixing. Oscar Skovholt and C. H. Bailey 351
Sullivan, B., Chairman. Report of the committee on methods of analysis 505
and Cleo Near. A study of yeast variability as measured by the Fermentograph 506
The use of the Farinograph as an accurate measure of absorption 527
and A. E. Treloar. The determination of moisture in feeds, a comparison of three moisture methods 520
Swanson, C. O. Some factors which affect the diastatic activity in wheat 89
Tag-Heppenstall Moisture Meter
Efficiency of, for determining the moisture content of grain. W. H. Cook, J. W. Hopkins, and W. F. Geddes 240, 241, 242
for determining the moisture content of barley malt. D. A. Coleman and S. R. Snider 641
Taka-diastase, effect of different buffer solutions at different pH levels on the diastasis of raw starch by. C. E. Mangels and J. J. Martin, Jr. 262
The aging of wheat flour and the nature of this process. Natalie Kozmin 165
The biological value of the proteins of white, wheat, and rye breads. R. B. French and H. A. Mattill 365
The Bunzell-Becker moisture determination apparatus. H. H. Bunzell 54
The composition and characteristics of soybeans, soybean flour, and soybean bread. L. H. Bailey, R. G. Capen, and J. A. LeClerc 441
The determination of moisture in barley malt. A comparison of methods and apparatus for this purpose. D. A. Coleman and S. R. Snider 621
The determination of moisture in feeds. A comparison of three moisture methods. A. E. Treloar and B. Sullivan 520
The determination of moisture in grains. A comparison of methods and apparatus for this purpose. W. H. Cook, J. W. Hopkins, and W. F. Geddes 230
The distribution of nitrogen in the seed of *Zea Mays* at different stages of maturity. Lawrence Zeleny 536
The effect of mixing and fermentation upon the protein structure and the colloidal properties of doughs. Oscar Skovholt and C. H. Bailey 307
The granulation of whole wheat meal and a method of expressing it numerically. G. H. Cutler and G. A. Brinson 120
The growth of bread molds as influenced by acidity. G. W. Kirby, C. N. Frey, and L. Atkin 244
The measurement of color in flour and bread by means of Maxwell discs. J. C. Baker, H. K. Parker, and F. B. Freese 17
The nature of the pigments of the gasoline extract of wheat. M. C. Markley and C. H. Bailey 33
The occurrence of acetylmethylcarbinol in bread and its relation to bread flavor. F. Visser't Hooft and F. J. G. de Leeuw 213
The pigments of the dilute alcohol or acetone extract of whole wheat meal. M. C. Markley and C. H. Bailey 40
The use of the Farinograph as an accurate measure of absorption. Cleo Near and B. Sullivan 527
The vitamin B (B_1) and G (B_2) content of wheat products. Agnes Fay Morgan and Marion J. Hunt 411
Track, Laura K. Cake baking method for testing soft wheat flours; standardization of cream of tartar 295
Transmittency values
Carotene fraction of ground durum wheat, Mindum variety. M. C. Markley and C. H. Bailey 36
Xanthophyll fraction of ground durum wheat, Mindum variety. M. C. Markley and C. H. Bailey 37
Treloar, A. E., and B. Sullivan. The determination of moisture in feeds. A comparison of three methods 520
Vacuum desiccator method for determining the moisture content of barley malt. D. A. Coleman and S. R. Snider 628
Vacuum-oven procedure
Accuracy of, for determining moisture content of grain. W. H. Cook, J. W. Hopkins, and W. F. Geddes 232
Accuracy of, for determining the moisture content of barley malt. D. A. Coleman and S. R. Snider 628
Variability in experimental baking using hand and machine manipulation. J. G. Malloch and J. W. Hopkins 57
Vaupel, E. A., and R. A. Barackman. Ash of flour in phosphated and self-rising flour 486
Vinegar, effect of, on growth of mold on bread loaves. G.W. Kirby, C. N. Frey, and L. Atkin 252, 253

Page

Viscosity of flour water suspensions and
bromate differential test. E. G. Bayfield 5, 6, 8, 12
loaf volume of soft red winter wheat flours. E. G. Bayfield 5, 6, 8, 12
protein content of soft red winter wheat and/or flour. E. G. Bayfield.. 5, 6, 8, 12
quality factors. E. G. Bayfield 7, 9, 10
Use of, to differentiate cake and pastry flours. C. E. Rich 555
Visser't Hooft, F., and F. J. G. deLeeuw. The occurrence of acetylmethylcarbinol in bread and its relation to bread flavor 213
Vitamin B (B_1) content of. Agnes Fay Morgan and Hilda Frederick
bread and grains 399
bread as affected by baking 390
bread ingredients 398
whole wheat bread baked at different temperatures 394
whole wheat bread crumb baked at different temperatures 394
whole wheat bread crust baked at different temperatures 394
Vitamin B (B_1) content of (rat growth procedure). Agnes Fay Morgan and Marion J. Hunt 411
dry brewery yeast 412
wheat germ 412
whole wheat 412
whole wheat with various percentages of wheat germ 412
Vitamin B (B_1) content of (pigeon method). Agnes Fay Morgan and Marion J. Hunt
wheat germ 414
wheat germ sterilized 414
whole wheat 414
whole wheat with various percentages of wheat germ 414
Vitamin G (B_2) content of. Agnes Fay Morgan and Marion J. Hunt
beef liver (dried) 416
brewery yeast (dried) 416
egg (whole dried) 416
milk (whole dried) 416
wheat germ 416, 417
whole wheat 416, 417
whole wheat bread 417
Walter, H. G. Report of the 1933–34 committee on methods of testing self-rising flours 161
Water, free and bound, in bread doughs. Oscar Skovholt and C. H. Bailey 321
Water-oven method, accuracy of, for determining the moisture content of barley malt. D. A. Coleman and S. R. Snider 628
Weaver, Ray, and C. C. Fifield. Mixing time experiments with flours milled from different classes of wheat 281
Wheat
Alcohol soluble pigments of. M. C. Markley and C. H. Bailey 40
Carotenoid pigments of. W. W. Worzella and G. H. Cutler 708
Carotenoid pigment content of different varieties and strains of. W. W. Worzella and G. H. Cutler 710
Classification of, according to strength by the A.A.C.C. experimental baking procedures. M. J. Blish and R. M. Sandstedt 653
Determination of carotenoid pigment concentration of small samples of. M. C. Markley and C. H. Bailey 33, 49
Diastatic activity of, factors affecting. C .O. Swanson
class of wheat 93–97
environmental conditions 93–97
moisture content of wheat 99
structure of wheat 103
tempering of wheat 100–101
variety of wheat 93–97
Experimental mill for grinding 100 grams of. W. F. Geddes and T. R. Aitken 691
Soft winter, factors influencing whole meal time test for. E. G. Bayfield 559
Vitamin B (B_1) content of. Agnes Fay Morgan and Hilda Frederick 394
Vitamin B (B_1) content of. Agnes Fay Morgan and Marion J. Hunt 412, 414
Wheat flour, factors affecting diastatic activity of. W. R. Steller, M. C. Markley, and C. H. Bailey 268
Wheat germ
Vitamin B (B_1) content of. Agnes Fay Morgan and Hilda Frederick 398
Vitamin B (B_1) content of. Agnes Fay Morgan and Marion J. Hunt 412, 414
Wheat meal granulation test. G. A. Brinson 120–123
Wheat products, vitamin B (B_1) and G (B_2) content of. Agnes Fay Morgan and Marion J. Hunt 417
Wheat protein
and the viscosity of flour-water suspensions of soft red winter wheat. E. G. Bayfield 5, 6, 8, 12

Page

Effect of soil fertility and variety on the quantity and quality of. E. G. Bayfield 5, 6, 8, 12
Relation of, to ash content of soft red winter wheat flours. E. G. Bayfield 5, 6, 8, 12
Wheat starch, effect of different buffers on the diastasis of. C. E. Mangels and J. J. Martin, Jr. 256
Wheat varieties, influences at different soil fertility levels on the quality and quantity of protein in. E. G. Bayfield 5, 6, 8, 12
Whole meal "time" test, study of factors affecting. E. G. Bayfield 559
Whole wheat bread
Biological values of. R. B. French and H. A. Mattill 371
Copper and iron content of. V. C. Myers, D. G. Remp, and F. C. Bing 373
Relative rate of absorption of carbohydrates of, as compared to white or rye bread. L. P. Laug, L. A. Garavelli, and T. P. Nash, Jr. 360, 364
Vitamin B (B_1) content of. Agnes Fay Morgan and Hilda Frederick.... 394, 399
Whole wheat meal
Acetone soluble pigments of. M. C. Markley and C. H. Bailey 40
Alcohol (dilute) soluble pigments of. M. C. Markley and C. H. Bailey 40
Gasoline soluble pigments of. M. C. Markley and C. H. Bailey 33
Worzella, W. W., and G. H. Cutler. Carotenoid pigments in wheat with special reference to varieties and strains 708
Yeast
dried brewer's, vitamin B (B_1) content of. Agnes Fay Morgan and Marion J. Hunt 412
freshly compressed, vitamin B (B_1) content of. Agnes Fay Morgan and Hilda Frederick 398
Variability of, as measured by the Fermentograph. Cleo Near and B. Sullivan 506
Yellowness in flour, method for determining. A. G. Simpson 569
Zeleny, Lawrence. The distribution of nitrogen in the seed of *Zea Mays* at different stages of maturity 536